



circuit breaker 3VA5 UL frame 125 3-pole, starter protection TM120M, AM, In=5A without overload protection short-circuit protection  $I_i=5...12 \times I_n$  without connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | HEAP                        |
| design of the product  | Starter protection          |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)                      | No                          |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | No                          |
| design of the overcurrent release  | TM120M                      |
| protection function of the overcurrent release   | I                           |
| number of poles  | 3                           |
| General technical data   |                             |
| insulation voltage / rated value   | 800 V                       |
| operating voltage / at AC / rated value  | 690 V                       |
| power loss [W] / maximum   | 8 W                         |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 2.7 W                       |
| mechanical service life (operating cycles) / typical   | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 8 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 4 000                       |
| electrical endurance (operating cycles) / at 480 V   | 8 000                       |
| electrical endurance (operating cycles) / at 600 V   | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No                          |
| product function   |                             |
| • communication function   | No                          |
| • phase failure detection  | No                          |
| • other measurement function   | No                          |
| Net Weight   | 951 g                       |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 5 A                         |
| • at 45 °C   | 5 A                         |
| • at 50 °C   | 5 A                         |
| • at 55 °C   | 5 A                         |
| • at 60 °C   | 5 A                         |
| • at 65 °C   | 5 A                         |
| • at 70 °C   | 5 A                         |

| Switching capacity according to IEC 60947                            |  |
|--|--|
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )   |  |
| • at 240 V   | 150 kA   |
| • at 415 V   | 70 kA  |
| • at 690 V   | 10 kA  |
| operating short-circuit current breaking capacity (I <sub>cs</sub> ) |  |
| • at 240 V   | 150 kA   |
| • at 415 V   | 70 kA  |
| • at 690 V   | 5 kA   |
| short-circuit current making capacity (I <sub>cm</sub> )             |  |
| • at 240 V   | 330 kA   |
| • at 415 V   | 154 kA   |
| • at 690 V   | 17 kA  |
| design of short-circuit protection                                   | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |

| Adjustable parameters  |      |
|--|------|
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping |      |
| • minimum  | 25 A |
| • maximum  | 60 A |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping               |      |
| • minimum  | 0 A  |
| • maximum  | 0 A  |
| product function / grounding protection                                      | No   |

| Mechanical Design      |         |
|------------------------|---------|
| product component      |         |
| • undervoltage release | No      |
| • voltage trigger      | No      |
| • trip indicator       | No      |
| height [in]            | 5.51 in |
| height                 | 140 mm  |
| width [in]             | 3 in    |
| width                  | 76.2 mm |
| depth [in]             | 3.01 in |
| depth                  | 76.5 mm |

| Connections   |                    |
|---|--------------------|
| arrangement of electrical connectors / for main current circuit | Without connection |
| type of electrical connection / for main current circuit        | Without            |

| Auxiliary circuit                              |   |
|--|---|
| number of CO contacts / for auxiliary contacts | 0 |

| Accessories                                |     |
|--|-----|
| product extension / optional / motor drive | Yes |

| Environmental conditions                  |        |
|---|--------|
| protection class IP / on the front        | IP40   |
| ambient temperature                       |        |
| • during operation / minimum              | -25 °C |
| • during operation / maximum              | 70 °C  |
| • during storage / minimum                | -40 °C |
| • during storage / maximum                | 80 °C  |
| reference code / according to IEC 81346-2 | Q      |

| Approvals / Certificates |  |
|--------------------------|--|
| General Product Approval |  |



[Confirmation](#)



General Product Approval

EMV

Test Certificates



Miscellaneous



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Marine / Shipping

other

Environment



Miscellaneous

Confirmation

Miscellaneous

[Environmental Confirmations](#)

### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5105-1MH31-0AA0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5105-1MH31-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

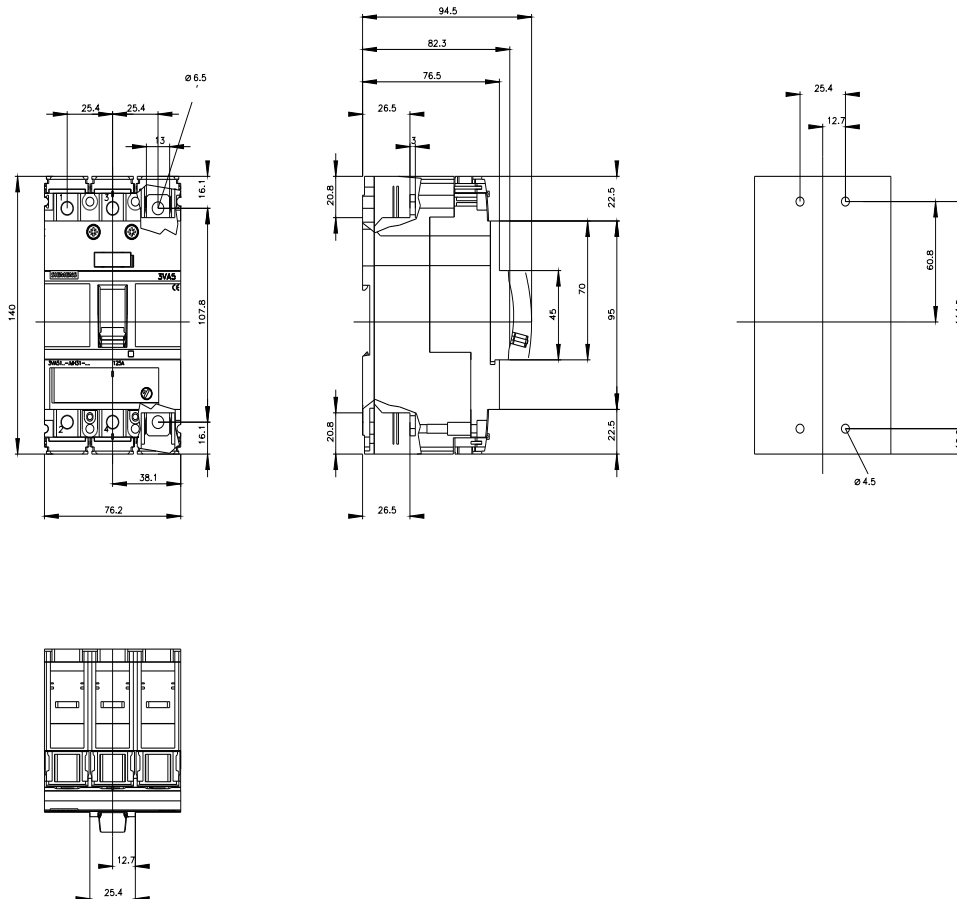
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5105-1MH31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5105-1MH31-0AA0)

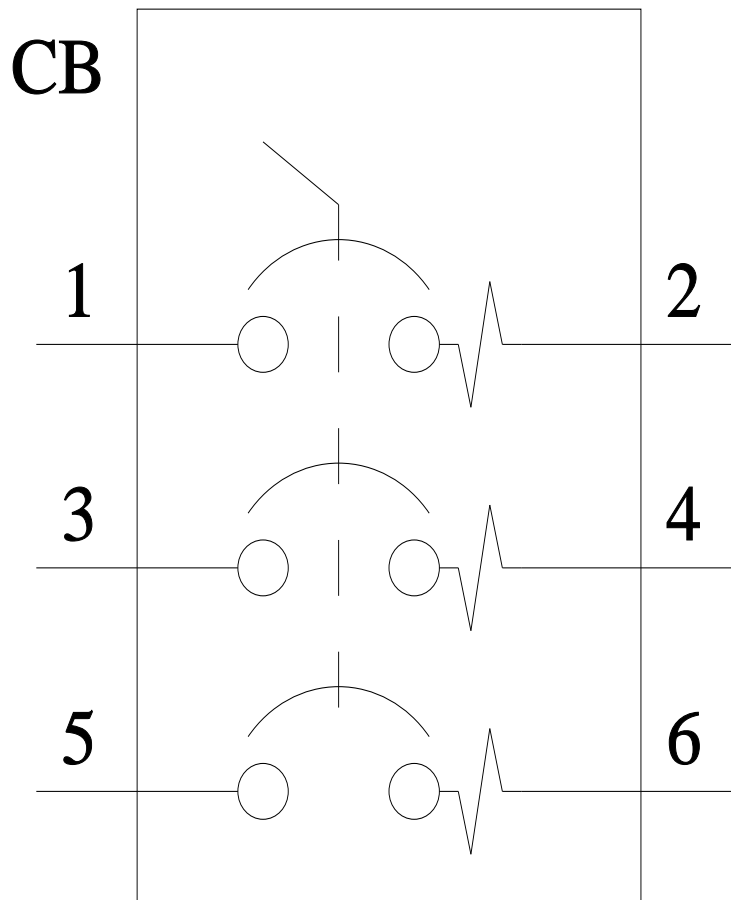
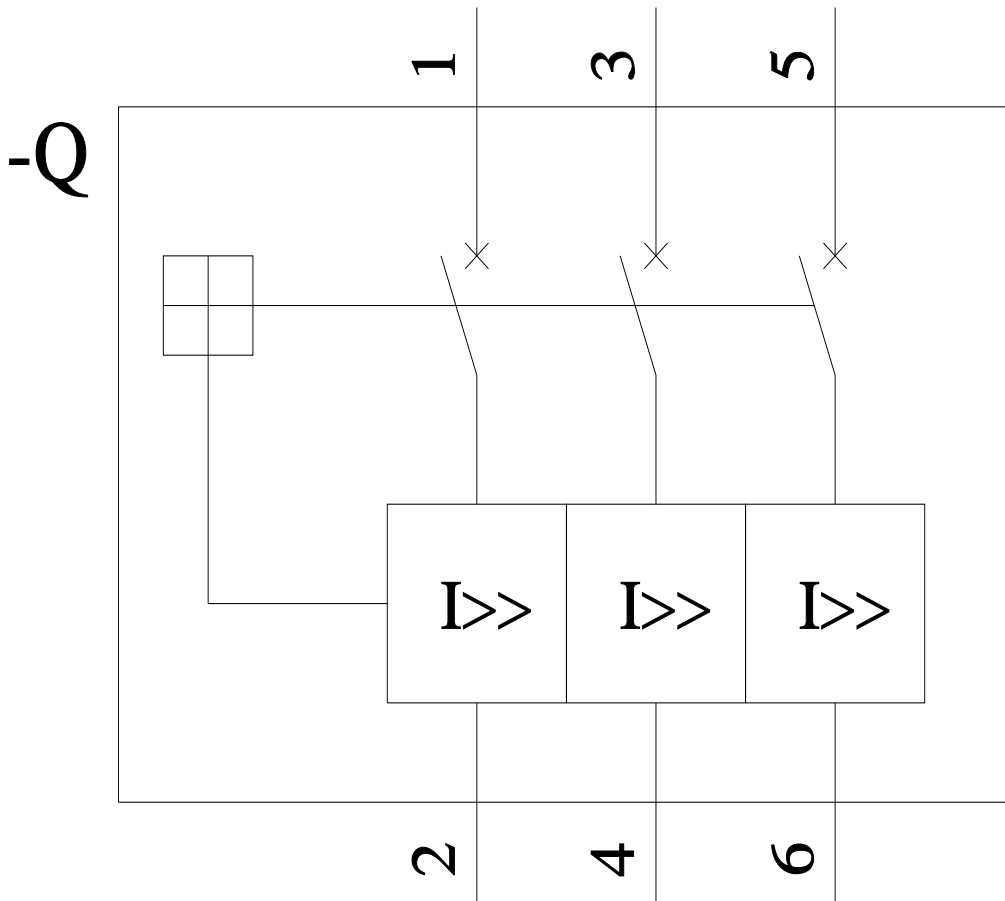
CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>





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